

Abstract

A planar antenna structure intended to be used in small portable radio devices and a radio device using an antenna structure according to the invention. The radiating element (340) of the antenna is a conductive part in the cover of the radio device or a conductive coating attached to the cover. The radiating element is fed electromagnetically by a parallel planar feed element (330) connected to the antenna port and located near the radiating element, between it and the ground plane (310). Between the feed element and antenna port there is a feed circuit (320) to provide matching for the antenna and, if necessary, forming an additional operating band. The radiating element need not be shaped to set the resonating frequencies or match the antenna. Instead, it can be designed relatively freely, based on the desired external appearance of the device, for example. Moreover the antenna requires relatively little space within the device.

Fig. 3